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REMEDIAL BRANCH

Field & Technical Services

200 Third Avenue • Carnegie, PA 15106 • Phone: 412-429-2694 • Fax: 412-279-4512

February 27, 2013

Ms. Raji Josiam
Mail Code 6SF-AP
U.S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

**RE: Report of Findings 2012 Deep Monitoring Well Sampling and Analysis
South Cavalcade Superfund Site
Houston, Texas**

Dear Ms. Josiam:

This report presents the results of the 2012 deep monitoring well groundwater sampling and analysis program conducted in accordance with the Record of Decision (ROD) and United States Environmental Protection Agency approved Remedial Design Work Plan (RDWP) for the South Cavalcade Superfund Site located in Houston, Texas. The annual groundwater sampling event was conducted on May 10, 2012 in accordance with the procedures outlined in the Remedial Design Sampling and Analysis Plan and the Remedial Design Quality Assurance Plan.

The objective of the deep well sampling program is to determine if potentially carcinogenic polycyclic aromatic hydrocarbon (pcPAH) compounds are present above background concentrations in groundwater in the deep aquifers beneath the site. To meet the sampling program objective, two deep monitoring wells (well DW-02 [approximately 200 feet deep] and well LCW-01 [approximately 500 feet deep]) (Figure 1) are sampled annually. However, due to an obstruction in the well, the operator was not able to sample or measure the total depth of the deeper monitoring well (LCW-01).

The results of the field and laboratory analyses of groundwater sampled from DW-02 (Table 1 and Attachments A and B) indicate pcPAH concentrations were less than method detection limits. As shown in Table 1, these data are consistent with the previous 16 years of data. Although the deeper well could not be sampled, the results of the analysis of groundwater from the shallower well (DW-02) were less than the detection limit. Therefore, there is no indication



February 27, 2013

of potential impact to the deeper aquifers because if any migration existed, constituents would be detected first in well DW-02.

If you have questions, feel free to call Angela Gatchie of FTS at (412) 428-9411.

Sincerely,

Field & Technical Services



Angela Gatchie
Project Scientist

Attachments

cc: Mike Bollinger – Beazer (.pdf)
Jim Zubrow - Key (.pdf)
Fay Duke – TCEQ (Report)

Enclosures:

Copy of Letter Report
and .pdf submittal



TABLE

Report of Findings 2012 Deep Monitoring Well Sampling and Analysis
South Cavalcade Superfund Site Houston, Texas



Table 1
South Cavalcade
Analytical Summary 1995 -2012
Annual Deep Well Groundwater Sampling
South Cavalcade, Texas



Sample Location: Sample Date:	DW-02 Mar-95	LCW-01 Mar-95	DW-02 Apr-96	LCW-01 Apr-96	DW-02 Mar-97	DW-02 Sep-99	DW-02 Mar-00	DW-02 Mar-01	DW-02 Dec-02	DW-02 Dec-03	DW-02 Dec-04	DW-02 Dec-05	DW-02 Dec-06	DW-02 Dec-07	DW-02 Dec-08	DW-02 Dec-09	DW-02 Dec-10	DW-02 Apr-11	DW-02 May-12
METHOD																			
BENZO(A)PYRENE	UG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.054 U	0.02 UJ	0.02 U	0.22 U	0.20 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U
BENZO(A)ANTHRACENE	UG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.22 U	0.20 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U
BENZO(B)FLUORANTHENE	UG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.053 U	0.02 UJ	0.02 U	0.22 U	0.20 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U
BENZO(K)FLUORANTHENE	UG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.046 U	0.02 U	0.02 U	0.22 U	0.20 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U
CHRYSENE	UG/L	0.15 U	0.15 U	0.15 U	0.20 U	0.150 U	0.15 U	0.15 U	2.20 U	0.20 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U
DIBENZO(A,H)ANTHRACENE	UG/L	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.22 U	0.20 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U
INDENO(1,2,3-CD)PYRENE	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.22 U	0.20 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	0.20 U	0.19 U	0.19 U

Notes:

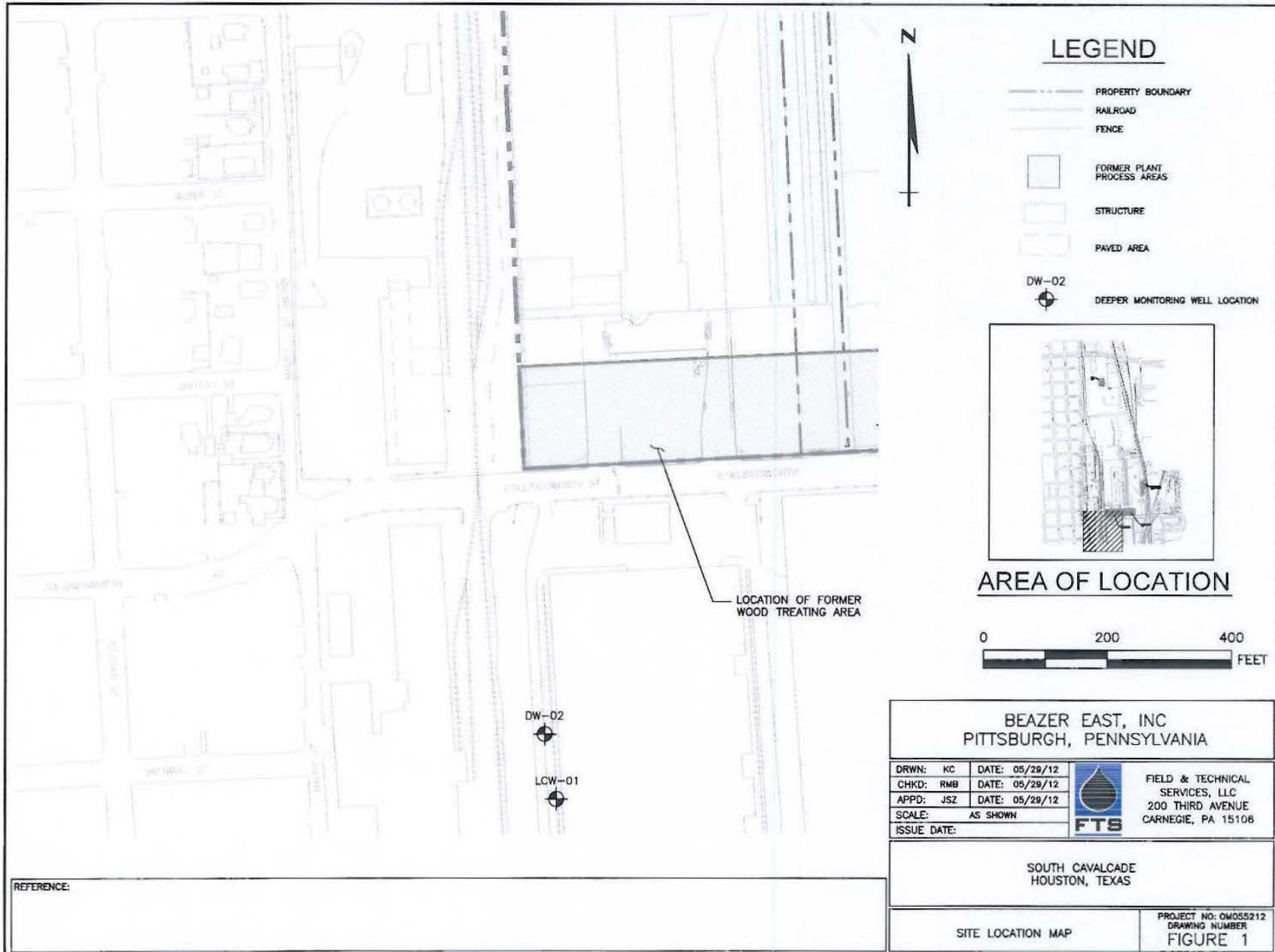
U indicates compound was analyzed for, but not detected.

In 1998, neither well LCW-01 nor well DW-02 were sampled.

FIGURE

Site Location Map
South Cavalcade Superfund Site Houston, Texas





ATTACHMENT A

Analytical Data Package

Report of Findings 2012 Deep Monitoring Well Sampling and Analysis
South Cavalcade Superfund Site Houston, Texas



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

[TestAmerica Job ID: 180-10681-1](#)

Client Project/Site: South Cavalcade

For:

Field & Technical Services LLC

200 Third Avenue

Carnegie, Pennsylvania 15106

Attn: Ms. Angie Gatchie

Veronica Bortot

Authorized for release by:

5/25/2012 9:07:21 AM

Veronica Bortot

Project Manager II

veronica.bortot@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Field & Technical Services LLC
Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

Job ID: 180-10681-1

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative
180-10681-1

Comments

No additional comments.

Receipt

The samples were received on 5/11/2012 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperatures of the 2 coolers at receipt time were 1.2° C and 3.8° C.

GC/MS Semi VOA

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Definitions/Glossary

Client: Field & Technical Services LLC
Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
✓	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Field & Technical Services LLC
Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	NELAC	9	4224CA
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAC	4	E871008
TestAmerica Pittsburgh	Illinois	NELAC	5	002602
TestAmerica Pittsburgh	Kansas	NELAC	7	E-10350
TestAmerica Pittsburgh	L-A-B	DoD ELAP		L2314
TestAmerica Pittsburgh	Louisiana	NELAC	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAC	1	203011
TestAmerica Pittsburgh	New Jersey	NELAC	2	PA005
TestAmerica Pittsburgh	New York	NELAC	2	11182
TestAmerica Pittsburgh	North Carolina DENR	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAC	3	02-00416
TestAmerica Pittsburgh	Pennsylvania	State Program	3	02-416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014002
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAC	8	STLP
TestAmerica Pittsburgh	Virginia	NELAC	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Summary

Client: Field & Technical Services LLC
Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-10681-1	DW02-051012	Water	05/10/12 11:10	05/11/12 09:25
180-10681-2	DUP-051012	Water	05/10/12 11:10	05/11/12 09:25
180-10681-3	DW02-051012 FIELD BLANK	Water	05/10/12 11:10	05/11/12 09:25

Method Summary

Client: Field & Technical Services LLC
Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

Method	Method Description	Protocol	Laboratory
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL PIT

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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11
12

Client Sample Results

Client: Field & Technical Services LLC
 Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

Client Sample ID: DW02-051012

Date Collected: 05/10/12 11:10

Date Received: 05/11/12 09:25

Lab Sample ID: 180-10681-1

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.19	U	0.19		ug/L		05/17/12 08:22	05/23/12 17:12	1
Benzo[b]fluoranthene	0.19	U	0.19		ug/L		05/17/12 08:22	05/23/12 17:12	1
Benzo[k]fluoranthene	0.19	U	0.19		ug/L		05/17/12 08:22	05/23/12 17:12	1
Benzo[a]pyrene	0.19	U	0.19		ug/L		05/17/12 08:22	05/23/12 17:12	1
Chrysene	0.19	U	0.19		ug/L		05/17/12 08:22	05/23/12 17:12	1
Dibenz(a,h)anthracene	0.19	U	0.19		ug/L		05/17/12 08:22	05/23/12 17:12	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19		ug/L		05/17/12 08:22	05/23/12 17:12	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Terphenyl-d14		83		10 - 132			05/17/12 08:22	05/23/12 17:12	1
Nitrobenzene-d5		78		23 - 112			05/17/12 08:22	05/23/12 17:12	1
2-Fluorobiphenyl		77		19 - 107			05/17/12 08:22	05/23/12 17:12	1

Client Sample ID: DUP-051012

Date Collected: 05/10/12 11:10

Date Received: 05/11/12 09:25

Lab Sample ID: 180-10681-2

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.21	U	0.21		ug/L		05/17/12 08:22	05/23/12 18:26	1
Benzo[b]fluoranthene	0.21	U	0.21		ug/L		05/17/12 08:22	05/23/12 18:26	1
Benzo[k]fluoranthene	0.21	U	0.21		ug/L		05/17/12 08:22	05/23/12 18:26	1
Benzo[a]pyrene	0.21	U	0.21		ug/L		05/17/12 08:22	05/23/12 18:26	1
Chrysene	0.21	U	0.21		ug/L		05/17/12 08:22	05/23/12 18:26	1
Dibenz(a,h)anthracene	0.21	U	0.21		ug/L		05/17/12 08:22	05/23/12 18:26	1
Indeno[1,2,3-cd]pyrene	0.21	U	0.21		ug/L		05/17/12 08:22	05/23/12 18:26	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Terphenyl-d14		99		10 - 132			05/17/12 08:22	05/23/12 18:26	1
Nitrobenzene-d5		85		23 - 112			05/17/12 08:22	05/23/12 18:26	1
2-Fluorobiphenyl		81		19 - 107			05/17/12 08:22	05/23/12 18:26	1

Client Sample ID: DW02-051012 FIELD BLANK

Date Collected: 05/10/12 11:10

Date Received: 05/11/12 09:25

Lab Sample ID: 180-10681-3

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.20	U	0.20		ug/L		05/17/12 08:22	05/23/12 18:51	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		05/17/12 08:22	05/23/12 18:51	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		05/17/12 08:22	05/23/12 18:51	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		05/17/12 08:22	05/23/12 18:51	1
Chrysene	0.20	U	0.20		ug/L		05/17/12 08:22	05/23/12 18:51	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		05/17/12 08:22	05/23/12 18:51	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		05/17/12 08:22	05/23/12 18:51	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Terphenyl-d14		101		10 - 132			05/17/12 08:22	05/23/12 18:51	1
Nitrobenzene-d5		92		23 - 112			05/17/12 08:22	05/23/12 18:51	1
2-Fluorobiphenyl		87		19 - 107			05/17/12 08:22	05/23/12 18:51	1

QC Sample Results

Client: Field & Technical Services LLC
 Project/Site: South Cavalcade

Te

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 180-36296/1-A

C

Matrix: Water

Analysis Batch: 36988

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prep
Benzo[a]anthracene	0.20	U	0.20		ug/L		05/17/1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		05/17/1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		05/17/1
Benzo[a]pyrene	0.20	U	0.20		ug/L		05/17/1
Chrysene	0.20	U	0.20		ug/L		05/17/1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		05/17/1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		05/17/1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prep
Terphenyl-d14	83		10 - 132				05/17/1
Nitrobenzene-d5	84		23 - 112				05/17/1
2-Fluorobiphenyl	84		19 - 107				05/17/1

Lab Sample ID: LCS 180-36296/2-A

Client S

Matrix: Water

Analysis Batch: 36988

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%
Benzo[a]anthracene		20.0	14.1		ug/L		
Benzo[b]fluoranthene		20.0	14.2		ug/L		
Benzo[k]fluoranthene		20.0	12.6		ug/L		
Benzo[a]pyrene		20.0	14.1		ug/L		
Chrysene		20.0	14.2		ug/L		
Dibenz(a,h)anthracene		20.0	13.6		ug/L		
Indeno[1,2,3-cd]pyrene		20.0	14.3		ug/L		
Surrogate		%Recovery	Qualifer	Limits			
Terphenyl-d14		82		10 - 132			
Nitrobenzene-d5		78		23 - 112			
2-Fluorobiphenyl		78		19 - 107			

Lab Sample ID: 180-10681-1 MS

C

Matrix: Water

Analysis Batch: 36988

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%
Benzo[a]anthracene	0.19	U	19.2	13.4		ug/L		
Benzo[b]fluoranthene	0.19	U	19.2	12.3		ug/L		
Benzo[k]fluoranthene	0.19	U	19.2	10.9		ug/L		
Benzo[a]pyrene	0.19	U	19.2	12.3		ug/L		
Chrysene	0.19	U	19.2	12.0		ug/L		
Dibenz(a,h)anthracene	0.19	U	19.2	12.3		ug/L		
Indeno[1,2,3-cd]pyrene	0.19	U	19.2	12.4		ug/L		
Surrogate	%Recovery	Qualifer	Limits					
Terphenyl-d14	76		10 - 132					
Nitrobenzene-d5	70		23 - 112					
2-Fluorobiphenyl	60		19 - 107					

QC Sample Results

Client: Field & Technical Services LLC
 Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 180-10681-1 MSD							Client Sample ID: DW02-051012						
Matrix: Water							Prep Type: Total/NA						
Analysis Batch: 36988							Prep Batch: 36296						
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	Limit		
Benzo[a]anthracene	0.19	U	20.4	14.7		ug/L	72	38 - 101		9	36		
Benzo[b]fluoranthene	0.19	U	20.4	13.0		ug/L	64	29 - 98		5	46		
Benzo[k]fluoranthene	0.19	U	20.4	12.8		ug/L	63	28 - 107		17	31		
Benzo[a]pyrene	0.19	U	20.4	13.5		ug/L	66	26 - 108		9	40		
Chrysene	0.19	U	20.4	13.5		ug/L	66	37 - 99		12	42		
Dibenz(a,h)anthracene	0.19	U	20.4	13.7		ug/L	67	19 - 118		11	44		
Indeno[1,2,3-cd]pyrene	0.19	U	20.4	13.7		ug/L	67	22 - 115		10	54		
Surrogate	MSD %Recovery	MSD Qualifier	Limits										
Terphenyl-d14	81		10 - 132										
Nitrobenzene-d5	72		23 - 112										
2-Fluorobiphenyl	65		19 - 107										

QC Association Summary

Client: Field & Technical Services LLC
 Project/Site: South Cavalcade

TestAmerica Job ID: 180-10681-1

GC/MS Semi VOA

Prep Batch: 36296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10681-1	DW02-051012	Total/NA	Water	3520C	
180-10681-1 MS	DW02-051012	Total/NA	Water	3520C	
180-10681-1 MSD	DW02-051012	Total/NA	Water	3520C	
180-10681-2	DUP-051012	Total/NA	Water	3520C	
180-10681-3	DW02-051012 FIELD BLANK	Total/NA	Water	3520C	
LCS 180-36296/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 180-36296/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 36988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10681-1	DW02-051012	Total/NA	Water	8270C LL	36296
180-10681-1 MS	DW02-051012	Total/NA	Water	8270C LL	36296
180-10681-1 MSD	DW02-051012	Total/NA	Water	8270C LL	36296
180-10681-2	DUP-051012	Total/NA	Water	8270C LL	36296
180-10681-3	DW02-051012 FIELD BLANK	Total/NA	Water	8270C LL	36296
LCS 180-36296/2-A	Lab Control Sample	Total/NA	Water	8270C LL	36296
MB 180-36296/1-A	Method Blank	Total/NA	Water	8270C LL	36296

10681

1-2 #3

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact					TestAmerica Laboratory location:					TestAmerica Laboratories, Inc.										
					<input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other															
Company Name: <i>Field & Technical Services</i>	Client Project Manager: <i>Angie Cratchie</i>	Site Contact: <i>Dennis U.S. WES</i>			Lab Contact: <i>Veronica Govtot</i>			COC No: <i>1 of 2 COCs</i>												
Address: <i>200 Trunk Avenue</i>	Telephone: <i>412 429 2694</i>	Telephone: <i>412 429 2694</i>			Telephone: <i>412 429 2694</i>															
City/State/Zip: <i>Couriers, Pa 15106</i>	Email: <i></i>	Analysis Turnaround Time (in BUS days)			TAT if different from below			Walk-off Sample												
Phone: <i>412 429 2694</i>					<input type="checkbox"/> 3 weeks	<input type="checkbox"/> 2 weeks	<input type="checkbox"/> 1 week	<input type="checkbox"/> 2 days	<input type="checkbox"/> 1 day	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No							
Project Name: <i>South Canalside</i>	Method of Shipment/Carrier: <i></i>	Shipping/Tracking No: <i>8200C LL Mod Part</i>			Analyses			Sample Specific Notes / Special Instructions:												
Project Number: <i></i>																				
P.O.#		Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOM	Uranium	Other	Elemental Sample (Y/N)	Composite C/S (Y/N)	Composite C/S (Y/N)
DW02-05/01/12	05/10/12	1100	X											X	N					2X1LGA
DW02-05/01/12	05/10/12	1100	X											X	N					2X1LGA
DWP-05/01/12	05/10/12	—	X											X	N					2X1LGA
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)															
					<input type="checkbox"/> Return to Client					<input type="checkbox"/> Disposal to Landfill					<input type="checkbox"/> Archive Site					
					Months															

10681

3-B#3

Chain of Custody Record

TestAmerica Laboratory location:

Regulatory program:

 DW NPDES RCRA Other

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5/25/2012

Client Contact			Client Project Manager:		Site Contact:		Lab Contact:		TestAmerica Laboratories, Inc.										
Company Name: <i>Field & Technical Services</i>	Client Project Manager: <i>Angie Gatchie</i>	Address: <i>200 Third Avenue</i>	Telephone: <i>412-429-2694</i>	Email: <i></i>	Site Contact: <i>Dennis W. K. K.</i>	Telephone: <i></i>	Lab Contact: <i>Veronica Ranta</i>	Telephone: <i></i>	COC No: <i>2 of 2 COCs</i>										
City/State/Zip: <i>Canonsburg PA 15108</i>	Method of Shipment/Carrier: <i></i>	Project Name: <i>SOUTH CANONSBURG</i>	Project Number: <i></i>	P O # <i></i>	Shipping/Tracking No: <i></i>	TAT if different from below: <input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day	Analyses <i>8270 46 Mail Path</i>	Sample Specific Notes / Special Instructions: <i>2x1L GA 2x1L GA</i>											
Sample Identification		Sample Date <i>5-10-12</i>	Sample Time <i>1110</i>	Air <input checked="" type="checkbox"/>	Aqueous <input checked="" type="checkbox"/>	Sediment <input checked="" type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Oil/wax <input checked="" type="checkbox"/>	H2SO4 <input checked="" type="checkbox"/>	HNO3 <input checked="" type="checkbox"/>	HCl <input checked="" type="checkbox"/>	NaOH <input checked="" type="checkbox"/>	ZnAc/ NaOH <input checked="" type="checkbox"/>	Uptres <input checked="" type="checkbox"/>	Other: <i></i>	Composite/C. Grav. C. <input checked="" type="checkbox"/>	Filtered Sample (X) (S) <input checked="" type="checkbox"/>		
DW02-051012 MS/MSD																			
DW02-051012 Field Stack		5-10-12																	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Special Instructions/QC Requirements & Comments: Relinquished by: <i>Edmund G. Ranta</i> Company: <i>FTS</i> Date/Time: <i>5-10-12 1500</i> Received by: <i>Ed G. Ranta</i> Company: <i></i> Date/Time: <i></i> Relinquished by: <i></i> Company: <i></i> Date/Time: <i></i> Received by: <i>E. Ranta</i> Company: <i>TAPITT</i> Date/Time: <i>5-11-12 0925</i> Relinquished by: <i></i> Company: <i></i> Date/Time: <i></i> Received in Laboratory by: <i></i> Company: <i></i> Date/Time: <i></i>																			

Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 180-10681-1

Login Number: 10681

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Ras, Erin F

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

*Report of Findings 2012 Deep Monitoring Well Sampling and Analysis
South Cavalcade Superfund Site, Houston, Texas*

ATTACHMENT B
Groundwater Sampling Report Form

Report of Findings 2012 Deep Monitoring Well Sampling and Anal
South Cavalcade Superfund Site Houston, Texas



WELL NO.: DW-02

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

Project No.: OM055212 - 091	Date: 5-10-12	Time: Start: 1040 am/pm
Project Name: South Carolina	Finish: 1110 am/pm	
Location: Houston, Texas		
Weather Conditions: 75° Cloudy	Collector: Dennis Usko Dennis Usko	Print Sign

1. WATER LEVEL DATA (measured from top of well casing)

- a. Total Casing Length: 720 (ft) b. Well Casing Type: Steel
c. Depth to Water: 126.02 (ft) d. Casing Diameter: 4 (in)
e. Length of Water Column: 94 (ft) (a-c)
f. Well Volume: 61 (gal)

Conversion Factors (cf)
($\text{cu ft} \times 7.481 = \text{gal}$)

Casing I.D. (in)	Conv. Fact.
1	0.041
2	0.163
3	0.367
4	0.653
6	1.470

2. WELL PURGE DATA

- a. Purge Method: Pump
b. Field Testing Equipment: Dedicated Submersible Pump & T-junction Hose
c. Number of Well Volumes to Remove: 3
d. Required Total Purge Volume (1f x 2c):

Vol. Purged (total gal)	Temp (° C)	pH (s.u.)	Spec. Cond.	Turbidity (NTU)	Notes
60	23.6	7.38	631	0.22	
120	23.4	7.25	674	0.25	
185	24.2	7.30	679	0.47	

3. SAMPLE COLLECTION INFORMATION

Sampling Method(s): Submersible Pump

Sample Identification (name, time, date): DW02 - 051012 1110 5-10-12

QC Samples (name, time, date): DW02 - MS/MSD 051012 1110 5-10-12

DW02 - 051012 Blank 1110 5-10-12, DW02 051012 Dpx

Analytical Parameters Polynuclear Aromatic Hydrocarbons (8310)

and Methods:

Comments: List of PAH's - Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)flouranthene, Benzo(k)flouranthene, Chrysene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene